

Elements of Artificial Neural Networks. By Kishan Mehrotra, Chilukuri K. Mohan and Sanjay Ranka. MIT Press, Cambridge, MA. (1997). 344 pages. \$55.00.

Contents:

Preface. 1. Introduction. 2. Supervised learning: Single-layer networks. 3. Supervised learning: Multilayer networks I. 4. Supervised learning: Multilayer networks II. 5. Unsupervised learning. 6. Associative models. 7. Optimization methods. A. A little math. B. Data. Bibliography. Index.

The New Hacker's Dictionary, (Third edition). Compiled by Eric S. Raymond. MIT Press, Cambridge, MA. (1996). 547 pages. \$16.50.

Contents:

Confessions of a happy hacker (Guy Steele). Hacker in a strange land (Eric Raymond). Preface to the second edition. Preface to the third edition. Introduction. How jargon works. How to use the lexicon. The jargon lexicon. Appendices. A. Hacker folklore. B. A portrait of J. Random Hacker. C. Helping hacker culture grow. Bibliography. Contributors.

The Media Equation: How People Treat Computers, Television, & New Media Like Real People & Places. By Byron Reeves and Clifford Nass. CSLI Publications/Cambridge University Press, Stanford, CA/Cambridge, U.K. (1996). 305 pages. \$27.95.

Contents:

Preface. Introduction. 1. The media equation. Media and manners. 2. Politeness. 3. Interpersonal distance. 4. Flattery. 5. Judging others and ourselves. Media and personality. 6. Personality of characters. 7. Personality of interfaces. 8. Imitating personality. Media and emotion. 9. Good versus bad. 10. Negativity. 11. Arousal. Media and social roles. 12. Specialists. 13. Teammates. 14. Gender. 15. Voices. 16. Source orientation. Media and form. 17. Image size. 18. Fidelity. 19. Synchrony. 20. Motion. 21. Scene changes. 22. Subliminal images. Final words. 23. Conclusions about the media equation. References. Chapter references. Author index.

Data Structures and Algorithms: A First Course. By I. Adamson. Springer-Verlag, London. (1996). 419 pages. DM 38.00, öS 277.40, sFr 34.00.

Preface. I. Data structures. 1. Arrays, records, and linked lists. 2. Stacks and queues. 3. Binary trees. 4. Heaps. 5. Graphs. II. Algorithms. 6. Algorithms and complexity. 7. Sorting algorithms. 8. Graph algorithms. 9. Some miscellaneous algorithms. III. Storing and searching. 10. Storing in arrays and lists. 11. Storing in binary trees. 12. Storing in multiway trees. IV. Solutions. 13–24. Solutions to exercises 1–12. Index.

Introduction to Maple, (Second edition). By André Heck. Springer-Verlag, New York. (1996). 699 pages. DM 68.00; öS 496.40; sFr 60.00.

Contents:

Preface to the second edition. Preface to the first edition. List of tables. 1. Introduction to computer algebra. 2. The first steps: Calculus on numbers. 3. Variables and names. 4. Getting around with Maple. 5. Polynomials and rational functions. 6. Internal data representation and substitution. 7. Manipulation of polynomials and rational expressions. 8. Functions. 9. Differentiation. 10. Integration and summation. 11. Series, approximation, and limits. 12. Composite data types. 13. The assume facility. 14. Simplification. 15. Graphics. 16. Solving equations. 17. Differential equations. 18. Linear algebra: The `linalg` package. 19. Linear algebra: Applications. References. Index.

Principles and Practice of Mathematics. By COMAP, Inc. Springer-Verlag, New York. (1997). 686 pages. DM 98.00; öS 715.40; sFr 86.50.

Contents:

1. Change. 2. Position. 3. Linear algebra. 4. Combinatorics. 5. Graphs and algorithms. 6. Analysis of algorithms. 7. Logic and the design of "intelligent" devices. 8. Chance. 9. Modern algebra. Appendices. 1. A brief excursion into set theory. 2. Pseudocode. Solutions to odd-numbered exercises. Recommended readings. Index.

Partiality, Modality, and Nonmonotonicity. Edited by Patrick Doherty. CSLI Publications, Stanford, CA. (1996). 300 pages. \$64.95 (hardback); \$22.95 (paper).

Contents:

Contributors. Preface. Part I. Foundations. 1. How different is partial logic? (Tore Langholm). 2. Sequent formalizations of three-valued logic (Douglas Busch). 3. Modalities for reasoning about knowledge and uncertainties (Wiebe van der Hoek and John-Jules Meyer). 4. Fundamentals of partial modal logic (Jan Jaspars and Elias Thijssen). Part II. Case studies. 5. A study in modal embeddings of NML3 (Patrick Doherty and Witold Lukaszewicz). 6. A model-based approach to predictive causal reasoning (John Bell). 7. Partial semantics for truth maintenance (Cees Witteveen). 8. Combining partial and classical semantics. A Hybrid approach to belief and awareness (Elias Thijssen). 9. Autoepistemic logic as a basis for automating nonmonotonic reasoning (Ilkka Niemelä). Name index. Subject index.